

APPARATUS AND METHOD FOR MICROCONTROLLER DEBUGGING

ABSTRACT OF THE DISCLOSURE

5 Apparatus and method for microcontroller debugging. A preferred embodiment
microcontroller integrated circuit comprises debug circuitry on the integrated circuit.
The debug circuitry is capable of breaking normal instruction execution based on an
address breakpoint, a stack pointer breakpoint, or a single step breakpoint. Upon
detection of a valid breakpoint, the debug circuitry substitutes a jump to a debug
10 program instruction in place of the next normal application program instruction. The
debug program then may provide microcontroller status to a developer, allowing the
developer to debug the application program. Upon completion of the debug program,
control of the microcontroller is returned to the application program at the point of
interruption.

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